Investigators also propose new strategies in early intervention regarding mental health wellness, proper nutrition, dental hygiene, fitness exercise, stress reduction, safe sex, substance abuse abstinence, and smoking cessation. The aims of these recommendations and strategies are to equip primary care physicians with the knowledge and information to responsibly manage the health care of HIV-infected patients.

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REFERENCES

Calonge BN, Petersen LR, Miller RS, Marshall G: Human immunodeficiency virus seroprevalence in primary care practices in the United States. West J Med 1993; 158:148-152

Centers for Disease Control and Prevention: Recommendations of the Advisory Committee on Immunization Practices (ACIP): Use of vaccines and immune globulins in persons with altered immunocompetence. MMWR 1993; 40(RR-4):1-18

Evaluation and Management of Early HIV Infection: Clinical Practice Guideline. Rockville, Md, US Department of Health and Human Services publication No. 94-0572, 1994

HIV Early Intervention: Physician Guidelines, 2nd edition. Chicago, Ill, American Medical Association, 1994

Angiotensin-Converting Enzyme Inhibitors in Congestive Heart Failure

ANGIOTENSIN-CONVERTING ENZYME (ACE) inhibitors, a remarkable class of drugs developed from the initial discovery of molecules with ACE-inhibiting properties in the venom of Brazilian pit vipers, have been available for commercial use in the United States for more than a decade. First used for treating hypertension, it soon became appreciated that ACE inhibitors were also highly effective in the treatment of heart failure. In fact, much data exist to show that ACE inhibitors significantly reduce mortality in patients with moderate and severe heart failure, improve functional capacity, and prevent hospital admissions. Moreover, ACE inhibitors have been shown to decrease the development of symptomatic heart failure in patients with asymptomatic (New York Heart Association class I) disease. Despite these well-documented benefits, fewer than 50% of patients with heart failure are currently treated with ACE inhibitors.

Surveys of clinicians providing care to patients with heart failure suggest that physicians are reluctant to use ACE inhibitors in these patients because of the fear of causing hypotension. For this reason, ACE inhibitors are often reserved only for those patients with heart failure and concomitant hypertension. In the studies of the treatment of heart failure with ACE inhibitors, however, notable hypotension was distinctly unusual. Because of the profound clinical and economic benefits of ACE inhibitor therapy in these cases, virtually all patients with heart failure should be treated, and they should be treated with moderate doses, such as captopril, 50 mg three times a day, if tolerated. Patients in whom the use of ACE inhibitors is contraindicated include those with a history of allergy or a severe reaction to ACE inhibitors, those with refractory hyperkalemia (potassium level > 5.5 mmol per liter), and those with symptomatic hypotension. Patients with renal insufficiency (creatinine level > 265 μmol per liter [>3.0 mg per dl]) and those with systolic blood pressures less than 90 mm of mercury may be treated with ACE inhibitors, but they have a higher rate of complications and must be monitored carefully, often with a consulting cardiologist.

Angiotensin-converting enzyme inhibitors are thought to have a "class action" in patients with heart failure; therefore, no single agent is preferred over another. In patients considered to be at high risk for complications from ACE inhibitor therapy, institute treatment with a small dose of a short-acting drug (such as captopril, 6.25 mg) and observe the patient carefully for several hours. Patients taking diuretics should be examined for evidence of hypovolemia, and fluid and electrolyte disorders, if present, should be corrected before beginning ACE-inhibitor therapy. Patients should be seen in two days and at one week, and renal function, serum potassium levels, and blood pressures should be observed carefully. The ACE-inhibitor dosage should be increased slowly at two- to three-week intervals.

Angiotensin-converting enzyme inhibitors in the treatment of heart failure should be thought of not only as antihypertensive agents. Current evidence shows that they have a powerful effect on the myocardium at the cellular level and possibly retard the development of left ventricular hypertrophy. The vast majority of patients with heart failure are candidates for treatment with ACE inhibitors. Moreover, all patients suffering a myocardial infarction—except those in whom it is the first infarction and the infarction is inferior wall, small, nontransmural, and uncomplicated—should have their ejection fraction determined by echocardiogram or radionuclide ventriculogram. All those with ejection fractions below 40% should be treated with ACE inhibitors, even in the absence of symptoms or signs of heart failure.

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REFERENCES

Katz AM: The cardiomyopathy of overload: An unnatural growth response in the hypertrophied heart. Ann Intern Med 1994; 121:363-371

Konstam M, Dracup K, Baker D, et al: Heart Failure: Evaluation and Care of Patients With Left-Ventricular Systolic Dysfunction—Clinical Practice Guideline No. 11. Rockville, Md, Agency for Health Care Policy and Research, Public Health Service, US Dept of Health and Human Services, AHCPR publication No. 94-061d2, June 1994

Cryptorchidism

CRYPTORCHIDISM, from the Greek "hidden testes," is the most common urologic problem of neonates and young children. The estimated prevalence of cryptorchidism is about 3% among full-term neonates; among premature infants and those with low birth weights, it has been reported to be as high as 30%. The problem affects the right testis more frequently.

The consequences of a permanently undescended testis are potentially deleterious. Besides diminished fertility and psychological trauma, an undescended testis is the major risk factor for testicular cancer. Persons with

undescended testes have a 22 times higher risk for testicular cancer than those with normal testes, and the risk for cancer in the contralateral descended testicle is also higher than in normal testes. Seminoma, the most common tumor, usually manifests during the second or third decade of life.

Careful examination of an infant's genitalia is essential. If a testis is not palpable in the scrotum, the inguinal canal should be investigated by palpating it from the internal to the external ring. The position of a palpable testicle within the canal must be noted and an attempt made to "milk" it down toward the scrotum. If the testicle can be brought into the scrotum manually, then it represents a retractile testis, most of which are at the suprascrotal area. Another helpful maneuver to bring the testis down is to examine the infant with the ipsilateral leg crossed, which relaxes the cremasteric muscle and allows the testicle to descend into the scrotum.

If no testicle is palpable, the challenge is to locate it. Several studies are available for this purpose—gonadotropin stimulation, venography of the spermatic vessels, thallium imaging, abdominal ultrasonography, computed tomography (CT), and magnetic resonance imaging (MRI). Abdominal ultrasonography is most sensitive when the testis is next to or along the inguinal canal and is less sensitive in locating a testis that is in the abdomen. Even though CT and MRI are both sensitive techniques, MRI exposes the infant to no radiation and appears to be superior at evaluating cord structure. Venography of the gonadal vessels is useful but is technically difficult, invasive, and involves radiation exposure. Laparoscopy is the definitive method of locating an undescended testis; it provides direct visualization of the anatomy and information for planning surgical treatment.

In most cases, the natural history of an undescended testis is spontaneous descent, usually occurring within the first year of life and, in most cases, within the first three months of life. If no descent is observed by about 1 year of age, urologic consultation is indicated.

Therapy with human chorionic gonadotropin (hCG) hormone has been effective. The success rate is better for bilateral than unilateral undescended testes: as high as 40% and 30%, respectively. Treatment regimens vary but usually involve administering hCG every other day or twice a week for two to five weeks.

Orchiopexy is strongly advised for impalpable testes when hormonal therapy fails or when a mechanical or anatomic cause of cryptorchidism is suspected. Early surgical treatment is advocated in view of the possible beneficial effect on fertility and the possible decreased risk of cancer. Several surgical techniques are used. All involve isolating and ligating the hernial sac, freely mobilizing the cord with its vascular and vasal components, and fixating in the scrotum.

The clinical evaluation of neonates with an undescended testis must always include frequent discussions with the parents—taking time to answer their questions, providing objective information, presenting and explaining alternative therapies, and reducing parental anxiety whenever possible. Primary care physicians have an important role in the care of children with cryptorchidism.

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REFERENCES

Berkowitz GS, Lapinski RH, Dolgin SE, Gazella JG, Bodian CA, Holzman IR: Prevalence and natural history of cryptorchidism. Pediatrics 1993; 92:44-49

Gandhi K, Maizels M: Management of the undescended testis. Compr Ther 1993, 19:59

Neonatal Group B Streptococcus Infection—Recommendations for Screening and Prophylaxis

GROUP B STREPTOCOCCUS is the most common infectious cause of neonatal morbidity and mortality in the United States, causing disease in 12,000 to 15,000 newborns each year. The maternal cost is extremely high as well, with 50,000 cases of maternal infections yearly.

Of the 15% to 40% of women who are carriers of group B streptococcus and colonized in the gastrointestinal tract and vagina, 50% give birth to infants colonized with this organism, with 1% to 2% of these neonates clinically infected. The mortality for neonates with early-onset (the first week of life) group B streptococcus infection is 15% or higher. Risk factors identified by the American Academy of Pediatrics (AAP) or the American College of Obstetricians and Gynecologists (ACOG) that increase the infection or attack rate in neonates are prematurity (labor before 37 weeks), premature rupture of membranes, maternal fever, prolonged rupture of membranes (>18 hours), a previously infected child (ACOG only), and multiple births (AAP only).

A second syndrome, late-onset group B streptococcus infection, is seen in 0.5 to 1 per 1,000 live births. The patient usually is diagnosed with sepsis or meningitis, which may be due to either a maternal or community (nosocomial) infection.

To lower the rate of early-onset neonatal group B streptococcal infection from the current rate of 3 per 1,000 live births, multiple screening and treatment protocols have been recommended. Formulating screening and treatment policies is difficult because of a number of factors. Identifying and treating women at a high risk would prevent only a portion of the neonatal infections. The colonization of women by group B streptococcus is a transient phenomenon; a woman with a positive culture at 28 weeks may be culture-negative at term, and vice versa. In addition, obstetrics and neonatology are such emotionally and liability-charged areas, with perfect outcomes now expected and demanded, that even the Trial Lawyers of America have developed their own "guidelines."

Because of these factors, a consensus on screening and treatment guidelines has yet to be reached. At present, an AAP policy statement (RE9261) recommends chemoprophylaxis for those maternal carriers who have identified risk factors. In contrast, ACOG argues against universal screening, but does recommend intrapartum antibiotic chemoprophylaxis for all patients with identified